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Math EXPERT



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# Math

Expert teachers

# Sheets for Home Work

## Math





To	
Lesson	1
Unit	1

## 1 Complete each of the following :

- [a]  $0.7351 \approx \dots$  ( to the nearest hundredth )
- [b]  $152.3017 \approx \dots$  ( to the nearest thousandth )
- [c]  $\frac{2758}{1000} \approx \dots$  ( to the nearest hundredth )
- [d]  $3\frac{18}{500} \approx \dots$  ( to the nearest hundredth )
- [e]  $0.9998 \approx \dots$  ( to the nearest thousandth )

## 2 Choose the correct answer :

- [a]  $5.994 \approx 5.99$  to the nearest .....  
( unit or tenth or hundredth or thousandth )
- [b]  $12.3794 \approx 12.38$  to the nearest .....  
( unit or tenth or hundredth or thousandth )
- [c]  $4\frac{1}{8} \approx \dots$  to the nearest hundredth.  
( 4.125 or 4.12 or 4.13 or 4.1 )
- [d]  $3\ 725\text{ m.} \approx \dots$  to the nearest kilometre.  
( 3 or 4 or 37 or 3 730 )
- [e]  $47\ 997\text{ mL.} \approx \dots$  to the nearest litre.  
( 47.9 or 47 or 48.99 or 48 )

## 3 Complete each of the following :

- [a]  $14.372 + 15.449 = \dots \approx \dots$  (to the nearest hundredth)
- [b]  $17.48 - 9.3746 = \dots \approx \dots$  (to the nearest thousandth)
- [c]  $2\frac{3}{8} - \frac{4}{200} = \dots \approx \dots$  (to the nearest hundredth)
- [d] The difference between  $\frac{31}{500}$  and  $0.421 = \dots \approx \dots$   
(to the nearest hundredth)
- [e]  $13\ 259\text{ gm.} \approx \dots\text{ kg.}$  (to the nearest kilogram)

## 4 Write the greatest decimal fraction which consists of 3 , 5 , 4 and 2 , then approximate it to the nearest hundredth and to the nearest thousandth.

## 5 Two pieces of cloth are of length 85.91 m. and 82.3972 m. Find the sum of the lengths of the two pieces approximating the result to the nearest thousandth.

1 Put the suitable relation ( $>$ ), ( $<$ ) or ( $=$ ) :

[a]  $\frac{7}{11}$    $\frac{5}{11}$

[b]  $1\frac{9}{10}$    $2\frac{1}{10}$

[c] 1   $\frac{3}{5}$

[d]  $\frac{3}{4}$    $\frac{5}{6}$

[e] 3.2   $3\frac{1}{2}$

[f]  $\frac{61}{8}$    $7\frac{1}{2}$

2 [a] Arrange each of the following in an ascending order :

(1)  $\frac{1}{2}$ ,  $\frac{2}{5}$ ,  $\frac{7}{10}$  and  $\frac{1}{4}$

(2) 2.4,  $2\frac{1}{2}$ ,  $3\frac{4}{5}$  and  $1\frac{1}{2}$

[b] Arrange each of the following in a descending order :

(1)  $\frac{1}{2}$ ,  $\frac{7}{8}$ , 1 and  $\frac{2}{5}$

(2)  $\frac{1}{4}$ , 0.8, 0.4,  $\frac{1}{2}$  and  $\frac{3}{4}$

3 Complete each of the following :

[a]  $37.258 \approx \dots$  (to the nearest hundredth)

[b] If  $\frac{3}{8} = \frac{a}{24}$ , then  $a = \dots$

[c]  $42.7935 \approx 42.794$  to the nearest  $\dots$

[d] If  $\frac{16}{36} = \frac{4}{b}$ , then  $b = \dots$

[e]  $\frac{3}{500} \approx \dots$  (to the nearest hundredth)

4 Find the values of  $X$  that satisfies the relation  $\frac{3}{8} < \frac{X}{8} < \frac{9}{8}$  such that  $X$  is a whole number.

5 Write the smallest decimal fraction which consists of 3, 9, 2 and 4, then approximate it to the nearest thousandth.



## 1 Complete each of the following :

- [a]  $32.563 \times 100 = \dots\dots\dots$
- [b]  $25.0825 \approx \dots\dots\dots$  (to the nearest thousandth)
- [c]  $7.003 \text{ kg.} = \dots\dots\dots \text{ gm.}$
- [d] If  $\frac{3}{7} = \frac{x}{21}$ , then  $x = \dots\dots\dots$
- [e]  $4\frac{5}{8} \approx \dots\dots\dots$  (to the nearest hundredth)

## 2 Choose the correct answer :

- [a]  $4.162 \times 100 \dots\dots\dots 41.62$  ( $>$  or  $<$  or  $=$ )
- [b]  $32.531 \times 10 \dots\dots\dots 0.32531 \times 1\,000$  ( $>$  or  $<$  or  $=$ )
- [c]  $572.4 \text{ cm.} \approx \dots\dots\dots \text{ m. "to the nearest metre"}$   
(6 or 50 or 60 or 572)
- [d]  $37.756 \approx 37.76$  to the nearest  $\dots\dots\dots$   
(tenth or hundredth or thousandth or unit)
- [e]  $7.04 \times \dots\dots\dots = 704$  (10 or 100 or 1 000 or 10 000)

## 3 Put (✓) for the correct statement and (✗) for the incorrect one :

- [a]  $5.47 \times 1\,000 = 547$  ( )
- [b] If  $\frac{3}{5} = \frac{a}{10}$ , then  $a = 6$  ( )
- [c]  $2.53 \times 100 = 25.3 \times 10$  ( )
- [d]  $3.7 < 3\frac{5}{8}$  ( )
- [e]  $2.5781 \approx 2.58$  (to the nearest  $\frac{1}{1000}$ ) ( )

## 4 If the price of a piece of sweet is 2.25 pounds. What is the price of 10 pieces of the same kind ?

## 5 [a] Find the result of each of the following :

- (1)  $(37.21 + 3.4) \times 10 = \dots\dots\dots$
- (2)  $(7.742 \times 100) - 32.4 = \dots\dots\dots$

[b] Arrange the following numbers ascendingly :  $4\frac{1}{4}$ , 4.025, 4.375 and  $4\frac{1}{8}$

To	
Lesson	4
Unit	1

1 Find the product of each of the following :

[a]  $53 \times 0.7 = \dots\dots\dots$

[b]  $24 \times 0.06 = \dots\dots\dots$

[c]  $14 \times 0.003 = \dots\dots\dots$

[d]  $5.4 \times 3.2 = \dots\dots\dots$

[e]  $2.1 \times 0.34 = \dots\dots\dots$

2 Choose the correct answer :

[a]  $2.3 \times 0.004 = \dots\dots\dots$  ( 92 or 0.92 or 0.0092 or 0.092 )

[b]  $136.592 \approx 136.6$  to the nearest  $\dots\dots\dots$   
( ten or tenth or hundredth or unit )

[c]  $\frac{3}{8} \dots\dots\dots 0.35$  ( > or < or = )

[d]  $47.325 \times 10 \dots\dots\dots 4.7325 \times 100$  ( < or = or > )

[e]  $426.305 \approx \dots\dots\dots$  (to the nearest hundredth)  
( 400 or 426.30 or 426.31 or 426.305 )

3 Complete each of the following :

[a]  $35.61 \times 0.1 = \dots\dots\dots$

[b]  $12.5 + 7.632 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest  $\frac{1}{100}$  )

[c]  $5.37 \times 5 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest tenth)

[d]  $7.3 \text{ m.} = \dots\dots\dots \text{ dm.}$

[e]  $45.278 - 28.3451 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest 3 decimal places)

4 Find the area of the rectangle , its dimensions are 2.4 cm.  
and 4.5 cm. approximating the result to the nearest unit.

5 If the price of one metre of cloth is 7.75 pounds , find the price of  
2.25 metres of this cloth approximated to the nearest pound.



## 1 Find the result of each of the following :

[a]  $\frac{1}{2} \times \frac{4}{5} = \dots\dots\dots$

[b]  $16 \times \frac{5}{8} = \dots\dots\dots$

[c]  $3\frac{2}{5} \times 4\frac{1}{2} = \dots\dots\dots$

[d]  $3.5 \times 0.5 = \dots\dots\dots$

[e]  $37.59 \times 100 = \dots\dots\dots$

## 2 Choose the correct answer :

[a] 38.623 litres =  $\dots\dots\dots$  mL.

( 386.23 or 3 862.3 or 38 623 or 1 000 )

[b]  $\frac{3}{4} \times 1\frac{1}{2} = \dots\dots\dots$

(  $\frac{9}{8}$  or  $\frac{1}{2}$  or  $\frac{6}{10}$  or  $\frac{5}{4}$  )

[c]  $1\frac{3}{7} \dots\dots\dots 1\frac{4}{7}$

( > or < or = )

[d]  $93.4987 \approx \dots\dots\dots$  to the nearest thousandth.

( 93.40 or 93.50 or 93.499 or 93.5 )

[e] If  $\frac{6}{13} < \frac{x}{13} < \frac{8}{13}$ , then  $x = \dots\dots\dots$

( 6 or 7 or 8 or 13 )

## 3 Complete each of the following :

[a]  $1\frac{1}{5} \times 2\frac{1}{3} = \dots\dots\dots$

[b]  $3.52 \times 7.4 = \dots\dots\dots$

[c] 3.5 km. =  $\dots\dots\dots$  m.

[d]  $2\frac{3}{8} \approx \dots\dots\dots$  (to the nearest 2 decimal places)

[e]  $3\frac{1}{4} \times \frac{4}{13} = \dots\dots\dots$

## 4 [a] Arrange the following numbers in a descending order :

$\frac{1}{2}$ ,  $\frac{7}{8}$ , 1 and  $\frac{2}{5}$

[b] Put ( > ), ( < ) or ( = ) :

(1)  $2\frac{1}{4} \square \frac{7}{3}$

(2)  $5.73 \times 100 \square 57\,300$

## 5 The price of a bar of chocolate is L.E. $2\frac{3}{4}$

What is the cost of 15 bars of the same kind ?

To	
Lesson	6
Unit	1

**1** Find the quotient of each of the following :

[a]  $\frac{3}{4} \div \frac{3}{8} = \dots\dots\dots$

[b]  $\frac{2}{5} \div \frac{7}{10} = \dots\dots\dots$

[c]  $8 \div \frac{4}{9} = \dots\dots\dots$

[d]  $1\frac{3}{4} \div \frac{1}{2} = \dots\dots\dots$

[e]  $6\frac{1}{4} \div 12\frac{1}{2} = \dots\dots\dots$

**2** Put ( > ), ( < ) or ( = ) :

[a]  $\frac{3}{4}$  of an hour  40 minutes.

[b]  $\frac{4}{5}$    $\frac{2}{3}$

[c]  $7 \times \frac{1}{3}$    $2\frac{1}{3}$

[d]  $2\frac{1}{2} \div 4$    $\frac{7}{8}$

[e] 3.2 kg.  3 200 gm.

**3** Complete the following :

[a]  $7.35 + 16.028 \approx \dots\dots\dots$  (to the nearest  $\frac{1}{100}$  )

[b] 2.56 m. =  cm.

[c]  $2.3 \times 1.1 = \dots\dots\dots$

[d]  $\frac{2}{15} \times \frac{5}{6} = \dots\dots\dots$

[e]  $\frac{2}{5} \div 3 = \dots\dots\dots$

**4** The perimeter of a square is  $\frac{8}{11}$  m.

Find the length of each side of the square.

**5** Ahmed bought a piece of cloth 4.2 metres long , if the price of one metre is 48.7 pounds. Calculate the price of the cloth approximating the result to the nearest pound.



## 1 Complete the following :

[a]  $8.4 \div 10 = \dots\dots\dots$

[b]  $3.6 \div 100 = \dots\dots\dots$

[c]  $2456.8 \div 1\,000 = \dots\dots\dots$

[d]  $372.5\text{ gm.} = \dots\dots\dots\text{ kg.}$

[e]  $5\,629\text{ m.} \approx \dots\dots\dots\text{ km. (to the nearest km.)}$

5

## 2 Choose the correct answer :

[a]  $4.617 \times \dots\dots\dots = 4\,617$  ( 10 or 100 or 1 000 or 0.1 )

[b]  $\frac{5}{9} \dots\dots\dots \frac{7}{11}$  ( > or < or = )

[c]  $9.612 \times 100 \dots\dots\dots 9\,612 \div 100$  ( > or < or = )

[d]  $\frac{2}{3} \times \frac{9}{8} = \dots\dots\dots$  (  $\frac{3}{4}$  or  $\frac{4}{3}$  or 3 or  $\frac{1}{4}$  )

[e]  $1\frac{1}{2} \div \frac{1}{4} = \dots\dots\dots$  ( 2 or 6 or  $\frac{3}{8}$  or 12 )

5

## 3 Arrange the following numbers ascendingly :

$\frac{11}{12}$  ,  $\frac{5}{12}$  ,  $\frac{3}{4}$  ,  $\frac{2}{3}$  and  $\frac{5}{6}$

4

## 4 A road is of length 64 983 m. Find its length in kilometres approximating the result to the nearest hundredth.

3

## 5 If L.E. 565.5 is distributed among 10 poor persons.

How much money did each one take ?

3

## 1 Find the result :

[a]  $3\ 968 \div 124 = \dots\dots\dots$

[b]  $5\ 160 \div 215 = \dots\dots\dots$

[c]  $19\ 968 \div 256 = \dots\dots\dots$

## 2 Choose the correct answer :

[a]  $6\ 020 \div 215 = \dots\dots\dots$  ( 34 or 32 or 28 or 26 )

[b]  $0.342 \times 1.2 \dots\dots\dots 3.42 \times 0.12$  ( < or = or > )

[c]  $1\frac{3}{7} \dots\dots\dots 1\frac{5}{11}$  ( < or = or > )

[d]  $9\frac{1}{3} \times \frac{6}{7} = \dots\dots\dots$  ( 8 or  $\frac{1}{8}$  or  $\frac{8}{21}$  or  $2\frac{2}{3}$  )

[e]  $8\ 120 \div 145 = \dots\dots\dots$  ( 58 or 56 or 54 or 52 )

## 3 Complete the following :

[a] The number  $14.669 \approx \dots\dots\dots$  (to the nearest hundredth)

[b]  $3.2\ \text{kg.} = \dots\dots\dots\ \text{gm.}$

[c]  $1\ 845 \div 123 = \dots\dots\dots$

[d]  $0.97 \times 0.05 = \dots\dots\dots$

[e]  $75.351 \div 100 = \dots\dots\dots$

4 A truck can carry 162 boxes. Find the number of trips needed to transport 19 440 boxes.

5 [a] Ahmed bought 12 cans of juice , the price of each one is 1.85 pounds.  
How much money did Ahmed pay ?

[b] Arrange the following in an ascending order :

$0.6$  ,  $\frac{5}{8}$  ,  $\frac{2}{10}$  and  $0.5$



To	
Lesson	9
Unit	1

**1 Complete the following :**

[a]  $16.4 \div 0.4 = \dots\dots\dots$

[b]  $73.92 \div 2.31 = \dots\dots\dots$

[c]  $17.5 \div 1.25 = \dots\dots\dots$

[d]  $74.632 \times 100 = \dots\dots\dots$

[e]  $56.431 + 2.115 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest hundredth)

5

**2 Choose the correct answer :**

[a]  $8.46 \text{ dm.} = \dots\dots\dots \text{ cm.}$  ( 846 or 0.846 or 84.6 or 8 460 )

[b]  $172 \times 0.003 \dots\dots\dots 0.172 \times 0.3$  ( < or = or > )

[c]  $2\frac{1}{3} \dots\dots\dots \frac{7}{3}$  ( < or = or > )

[d]  $18.2 \div 1.3 = \dots\dots\dots$  ( 13 or 14 or 15 or 16 )

[e]  $54.5 \div 0.5 = \dots\dots\dots$  ( 1.9 or 1.09 or 19 or 109 )

5

**3** The length of a roll of cloth is 53.55 metres. It was divided into equal parts where the length of each part is 3.15 metres.  
Find the number of these parts.

3

**4** Find the number which if multiplied by 0.52  
the result will be 1.248

3

**5** Find the area of the rectangle whose length is 13.25 cm. and its width is 6.14 cm. , then approximate the result to the nearest hundredth.

4

## 1 Find the result :

- [a]  $17 \div 6$  (approximated to the nearest tenth) 4
- [b]  $23 \div 7$  (approximated to the nearest  $\frac{1}{100}$ )
- [c]  $12.7 \div 3$  (approximated to the nearest hundredth)
- [d]  $12.34 \div 0.9$  (approximated to the nearest  $\frac{1}{10}$ )

## 2 Choose the correct answer :

- [a]  $\frac{1}{25} \times 50 \times 0.25 = \dots\dots\dots$  ( 4 or  $\frac{1}{4}$  or  $\frac{1}{2}$  or 2 ) 5
- [b]  $6.28 \div 0.4 = \dots\dots\dots$  ( 15.7 or 157 or 1.57 or 0.157 )
- [c]  $2\frac{1}{4} \times 2\frac{2}{3} = \dots\dots\dots$  ( 6 or 3 or  $\frac{2}{3}$  or  $2\frac{1}{4}$  )
- [d]  $7.4 \dots\dots\dots 7\frac{5}{8}$  ( > or < or = )
- [e]  $7.8 \div 0.6 = \dots\dots\dots$  ( 10 or 11 or 13 or 14 )

## 3 Complete the following :

- [a] 39 days  $\approx$   $\dots\dots\dots$  weeks. (to the nearest week) 5
- [b]  $\frac{2}{11} \approx \dots\dots\dots$  (to the nearest tenth)
- [c]  $2\frac{1}{3} \div 1\frac{2}{7} = \dots\dots\dots$
- [d]  $25.2 \div 0.3 = \dots\dots\dots$
- [e]  $45.337 \times 10 = \dots\dots\dots$

## 4 Arrange the following ascendingly :

$$3\frac{1}{2}, 4\frac{1}{4}, 3\frac{3}{4}, 3\frac{1}{8} \text{ and } 3\frac{2}{5}$$
3

- 5 A family consumes 6.5 kg. of meat monthly where the cost of 1 kg. of meat is L.E. 38.5 Find what the family pays. (Approximate to the nearest pound) 3



**1** State which of the following is a set and which is not a set :

- [a] The colours of the Egyptian flag.
- [b] The letters in the word "Egypt".
- [c] Beautiful cities in Egypt.
- [d] Intelligent pupils in your class.
- [e] Days of the week.

5

**2** Write the elements of the following sets :

- [a] The set of digits of the number 74 581
- [b] The set of letters of the word "student".
- [c] The whole numbers between 5 and 10
- [d] The even numbers less than 10
- [e] The factors of 6

5

**3** Complete each of the following :

- [a]  $12\frac{1}{2} \times \frac{4}{5} = \dots\dots\dots$
- [b]  $45.334 \times 100 = \dots\dots\dots$
- [c]  $25.25 \div 0.25 = \dots\dots\dots$
- [d]  $72.358 \simeq \dots\dots\dots$  (to the nearest hundredth)
- [e]  $7.2 \times 5.2 = \dots\dots\dots$

5

**4** A building consists of 7 floors. If the height of each floor is 3.05 metres , find the height of the building.

2

**5** Arrange the following in a descending order :

$$\frac{1}{4} , \frac{4}{5} , \frac{1}{2} , 0.4 \text{ and } \frac{3}{4}$$

3

To	
Lesson	2
Unit	2

## 1 Express each of the following sets by listing method :

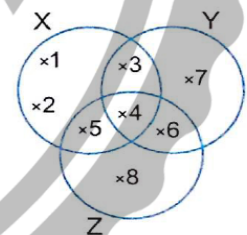
- [a] A = the set of days of the week
- [b] B = the set of digits of the number 32323
- [c] C = the set of letters of the word "door"
- [d] D = the set of prime numbers less than 10
- [e] E = the set of even numbers between 7 and 17

## 2 Express each of the following sets by description method :

- [a] A = { Port Said , Ismailia , Suez }
- [b] B = { 1 , 3 , 5 }
- [c] C = { 11 , 13 , 17 }
- [d] D = { 9 , 10 , 11 , 12 }
- [e] E = { o , a , g , l }

## 3 Using the Venn diagram below , list the element of each of the following :

- [a] X = .....
- [b] Y = .....
- [c] Z = .....
- [d] The set of the elements found in X and Y = .....
- [e] The set of the elements found in X , Y and Z = .....



## 4 Complete each of the following :

- [a] 43 days  $\approx$  ..... weeks (to the nearest week)
- [b] 2.576 m. = ..... cm.
- [c] If  $\frac{1}{3} = \frac{a}{15}$  , then a = .....
- [d]  $1.23 \times 0.6 = \dots \approx \dots$  (to the nearest hundredth)
- [e]  $2\frac{1}{3} \div \frac{5}{6} = \dots$

## 5 If the price a piece of sweet is 4.35 pounds , what is the price of 35 pieces of the sweet ?

- 1** If  $A = \{2, 5, 6, 7\}$  and  $B = \{0, 1, 5, 6\}$ ,  
put the suitable sign of ( $\in$  or  $\notin$ ) :

- [a] 6 ..... A , 6 ..... B  
[b] 2 ..... A , 2 ..... B  
[c] 1 ..... A , 1 ..... B  
[d] 5 ..... A , 5 ..... B  
[e] 65 ..... A , 65 ..... B

- 2** State if each set is finite , infinite or empty :

- [a] The set of whole numbers lying between 3 and 4 (.....)  
[b] The set of pupils in your school. (.....)  
[c] The set of even numbers. (.....)  
[d] The set of prime numbers between 1 and 3 (.....)  
[e] The set of dinosaurs in the zoo. (.....)

- 3** Choose the correct answer :

- [a] The smallest fraction in the following is .....  
(  $\frac{1}{3}$  or  $\frac{5}{8}$  or  $\frac{2}{9}$  or  $\frac{2}{5}$  )  
[b]  $\frac{1}{2}$  .....  $\frac{1}{3}$  ( > or = or < )  
[c] The quotient of dividing  $1.92 \div 0.6 =$  .....  
( 3.5 or 3.1 or 3.2 or 3 )  
[d]  $28.9316 \approx$  ..... (to the nearest thousandth)  
( 29 or 28.93 or 28.931 or 28.932 )

- 4** Complete each of the following :

- [a] If  $3 \in \{2, x, 5\}$  , then  $x =$  .....  
[b] If  $5 \in \{3, x + 4\}$  , then  $x =$  .....  
[c] If  $8 \in \{7, 5, x - 1\}$  , then  $x =$  .....  
[d]  $5\frac{5}{8} \approx$  ..... (to the nearest two decimal places)

- 5** Find the perimeter of the rectangle whose length is 4.1 cm.  
and its width is 3.5 cm. , then calculate its area.



To	
Lesson	4
Unit	2

1 Using the opposite Venn diagram , complete using ( $\in$  ,  $\notin$  ,  $\subset$  or  $\not\subset$ ) :

[a]  $Y \dots\dots\dots X$

[b]  $8 \dots\dots\dots X$

[c]  $\{10\} \dots\dots\dots X$

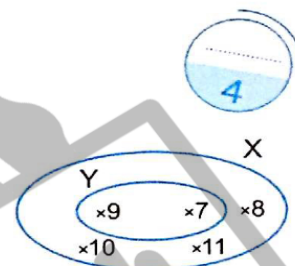
[d]  $11 \dots\dots\dots Y$

[e]  $\emptyset \dots\dots\dots X$

[f]  $\{9, 11\} \dots\dots\dots Y$

[g]  $Y \dots\dots\dots \{10, 11, 9, 7\}$

[h]  $X \dots\dots\dots Y$



2 Write down all the subsets for each of the following sets :

[a]  $\{5, 7\}$

[b]  $\{3, 4, 8\}$

3 Complete each of the following :

[a] If  $\{5, 3, 1\} = \{X, 5, 1\}$  , then  $X = \dots\dots\dots$

[b]  $3.25 \times 1.6 = \dots\dots\dots$

[c]  $9\frac{3}{4} \div 3\frac{1}{4} = \dots\dots\dots$

[d] If  $\{7, 10\} \subset \{2, 10, X\}$  , then  $X = \dots\dots\dots$

[e] 70 hours  $\approx$   $\dots\dots\dots$  days. (to the nearest day)

4 Choose the correct answer :

[a]  $\{7\} \dots\dots\dots \{17, 77\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )

[b] 7  $\dots\dots\dots$  the set of days of the week. ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )

[c]  $\emptyset \dots\dots\dots \{3, 4, 6\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )

[d]  $135.42 \div 100 = \dots\dots\dots$   
( 13 542 or 13.542 or 1.3542 or 1354.2 )

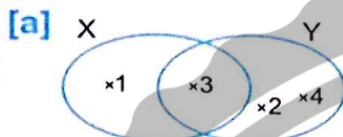
[e]  $\{1, 2, 3, 4, \dots\}$  is  $\dots\dots\dots$  set.  
( a finite or an infinite or an empty )

5 A worker earns L.E.  $2\frac{1}{2}$  per hour.

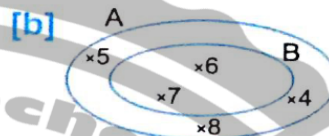
How many hours does he work to earn L.E.  $8\frac{3}{4}$  ?

To	
Lesson	5
Unit	2

## 1 Complete the following :



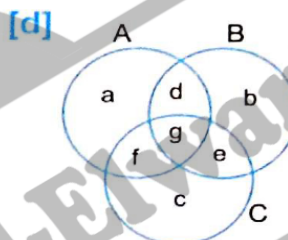
$$X \cap Y = \dots\dots\dots$$



$$A \cap B = \dots\dots\dots$$



$$X \cap Y = \dots\dots\dots$$



$$A \cap B \cap C = \dots\dots\dots$$

## 2 Complete the following :

[a]  $\{1, 2\} \cap \{2, 4\} = \dots\dots\dots$

[b]  $\{1, 3\} \cap \{5\} = \dots\dots\dots$

[c]  $\{1, 3\} \cap \emptyset = \dots\dots\dots$

[d] If  $5 \in \{3, x - 2\}$ , then  $x = \dots\dots\dots$

[e]  $39\frac{2}{5} - 7.25 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest unit)

## 3 Choose the correct answer :

[a]  $6.352 \times 100 = \dots\dots\dots$  (63.52 or 635.2 or 6 352 or 63 520)

[b]  $0.03 \times 3.6 = \dots\dots\dots$  (0.108 or 1.08 or 10.8 or 0.0108)

[c]  $2 \dots\dots\dots \{11, 22, 33\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )

[d]  $1 \dots\dots\dots \{2, 1, 4\} \cap \{3, 4, 1\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )

[e]  $\{a, b\} \dots\dots\dots \{a, b, c\} \cap \{a, c, d\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )

## 4 Find the result of each of the following :

[a]  $4\frac{1}{4} \div 8\frac{1}{2}$

[b]  $6.217 \times 100$

[c]  $11\,664 \div 216$

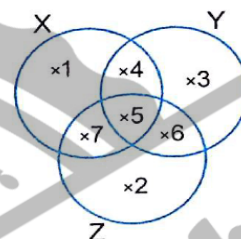
[d]  $\frac{2}{11}$  approximated to the nearest tenth.

5 If L.E. 565.5 is distributed among some poor people and each of them took L.E. 6.5 Find the number of poor people.

To	
Lesson	6
Unit	2

1 Using the opposite Venn diagram , complete :

- [a]  $X = \dots\dots\dots$  [b]  $Y = \dots\dots\dots$   
 [c]  $Z = \dots\dots\dots$  [d]  $X \cup Y = \dots\dots\dots$   
 [e]  $X \cup Z = \dots\dots\dots$  [f]  $Z \cup Y = \dots\dots\dots$   
 [g]  $X \cup Y \cup Z = \dots\dots\dots$  [h]  $X \cap Y \cap Z = \dots\dots\dots$



4

2 Choose the correct answer :

- [a]  $\{1, 9\}$  ..... the set of odd numbers. ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )  
 [b]  $62.5 \div 2.5 = \dots\dots\dots$  (25 or 35 or 700 or 45)  
 [c]  $20.379 \approx \dots\dots\dots$  (to the nearest hundredth)  
 (20 or 20.37 or 20.4 or 20.38)  
 [d]  $\emptyset$  .....  $\{0\}$  ( $=$  or  $\subset$  or  $\not\subset$  or  $\in$ )  
 [e] If  $X \subset Y$ , then  $X \cap Y = \dots\dots\dots$  ( $X$  or  $Y$  or  $\emptyset$  or  $\{0\}$ )

5

3 Complete the following :

- [a] If  $4 \in \{6, x, 9\}$ , then  $x = \dots\dots\dots$   
 [b] If  $X = \{3, 4\}$ ,  $Y = \{3, 5\}$ , then  $X \cup Y = \dots\dots\dots$   
 [c] 3.56 km. = ..... m.  
 [d]  $0.45 \times 0.6 = \dots\dots\dots$   
 [e]  $753.81 \div 100 = \dots\dots\dots$

5

4 [a] Find the value of  $x$  if :  $\frac{1}{4} = \frac{3}{x}$

4

[b] Arrange ascendingly : 0.8 ,  $\frac{3}{8}$  ,  $\frac{3}{4}$  and 0.6

5 If the price of one kg. of apple is 9.75 pounds.

2

Find the price of 2.5 kg.



1 Using the opposite Venn diagram , complete :

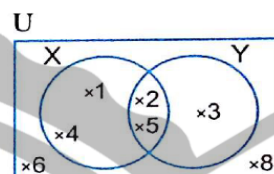
[a]  $U = \dots\dots\dots$

[b]  $X \cap Y = \dots\dots\dots$

[c]  $X \cup Y = \dots\dots\dots$

[d]  $\bar{X} = \dots\dots\dots$

[e]  $\bar{Y} = \dots\dots\dots$



2 If  $A = \{1, 2, 3\}$  ,  $B = \{2, 3, 5\}$  ,  $U = \{1, 2, 3, 4, 5, 6\}$  , represent A , B and U by a Venn diagram , then find :

[a]  $\bar{A}$

[b]  $\bar{B}$

[c]  $A \cap B$

[d]  $A \cup B$

3 Put the suitable sign of ( $\in$  ,  $\notin$  ,  $\subset$  or  $\not\subset$ ) :

[a]  $12 \dots\dots\dots \{10, 2\}$

[b]  $\{7\} \dots\dots\dots$  the set of even numbers.

[c]  $3 \dots\dots\dots \{33\}$

[d]  $\{2, 5, 9\} \dots\dots\dots$  the set of prime numbers.

4 Choose the correct answer :

[a]  $10.57 \div 9 \simeq \dots\dots\dots$  to the nearest hundredth.

( 1.20 or 1.18 or 1.17 or 1.16 )

[b]  $2\frac{1}{4} \times 1\frac{2}{3} = \dots\dots\dots$

(  $4\frac{1}{4}$  or  $3\frac{3}{4}$  or  $3\frac{7}{12}$  or  $2\frac{2}{12}$  )

[c] Which set is not a subset of  $\{g, h, f\}$  ?

(  $\{f\}$  or  $\{f, g, h\}$  or  $\{\}$  or  $\{gh\}$  )

[d]  $\{3, 2, 5\} \cap \{32, 5\} = \dots\dots\dots$

(  $\{3, 2, 5\}$  or  $\{32, 5\}$  or  $\{5\}$  or  $\{32\}$  )

5 Find the result :

[a]  $937.52 \times 10$

[b]  $355 \div 33$  (to the nearest thousandth)

[c]  $7\frac{4}{5} \div 3\frac{1}{4}$

[d]  $38.56 \div 100$

To	
Lesson	8
Unit	2

1 Using the opposite Venn diagram, list each of the following :

[a]  $A \cap B$

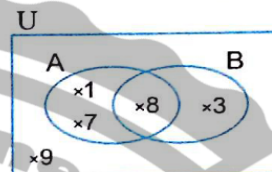
[b]  $A \cup B$

[c]  $A - B$

[d]  $B - A$

[e]  $\bar{A}$

[f]  $\bar{B}$



3

2 Using the opposite Venn diagram, find :

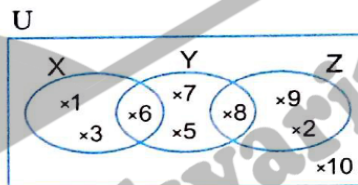
[a]  $X \cap Y$

[b]  $Y \cup Z$

[c]  $Z - Y$

[d]  $\bar{X}$

[e]  $X \cup Y \cup Z$



5

3 Complete the following :

[a]  $\{2, 3\} \cup \{3, 4\} = \dots\dots\dots$

[b] If  $\{3, 5\} \subset \{3, 10, x\}$ , then  $x = \dots\dots\dots$

[c]  $\{2, 4, 5\} - \{3, 4, 7\} = \dots\dots\dots$

[d] If  $X \subset Y$ , then  $X - Y = \dots\dots\dots$

[e]  $0.54 \times 1\,000 = \dots\dots\dots$

5

4 Choose the correct answer :

[a]  $\emptyset \dots\dots\dots \{3, 5\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )

[b] If  $\{4, 7, x\} = \{1, 4, 7\}$ , then  $x = \dots\dots\dots$   
( 1 or 4 or 5 or 7 )

[c] 45 days  $\simeq$   $\dots\dots\dots$  weeks (to the nearest week)  
( 5 or 6 or 7 or 8 )

[d] The greatest number in the following is  $\dots\dots\dots$   
( 0.111 or 0.12 or 0.123 or 1.023 )

[e] The number of subsets of the set  $\{4, 5\} = \dots\dots\dots$   
( 2 or 3 or 4 or 5 )

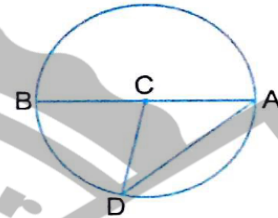
5

5 A big barrel has  $131\frac{1}{4}$  litres of oil and we want to distribute the oil in bottles. The capacity of each is  $5\frac{1}{4}$  litres. How many bottles are needed for that ?

2

1 In the opposite figure , complete :

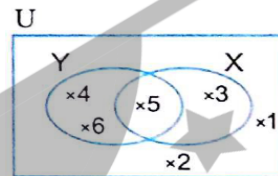
- [a]  $\overline{AB}$  is a ..... in the circle.  
 [b]  $\overline{AD}$  is a ..... in the circle.  
 [c] The point ..... is the centre of the circle.  
 [d] The line segments ..... , ..... and ..... are radii in the circle.  
 [e] The triangle ACD is ..... triangle according to its side lengths.



- 2 [a] Draw a circle of centre M and radius length 3 cm.  
 [b] Draw a circle N with diameter length 5 cm.

3 Use the opposite Venn diagram to list :

- [a]  $X \cap Y$   
 [b]  $X \cup Y$   
 [c]  $X - Y$   
 [d]  $\bar{Y}$



4 Find the result :

- [a]  $2\frac{4}{5} \div 1\frac{3}{4}$   
 [b]  $89\,614 \div 518$   
 [c]  $69.5 \times 0.47$

- 5 Draw the circle of centre M with radius length 5 cm. , draw the diameter  $\overline{AB}$  , then draw the chord  $\overline{BC}$  with length 6 cm. , then draw  $\overline{AC}$  and find its length.



To	
Lesson	2
Unit	3

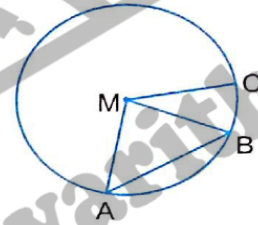
## 1 Draw :

- [a] The triangle ABC , in which  $AB = 7$  cm. ,  $BC = 5$  cm. ,  $AC = 6$  cm.  
 [b] The equilateral triangle XYZ whose side length is 5 cm.  
 [c] The triangle LMN in which  $LM = MN = 5$  cm. and  $LN = 6$  cm.

6

## 2 Choose the correct answer :

- [a] ..... is a chord in the circle M



3

(  $\overline{MA}$  or  $\overline{AB}$  or  $\overline{MC}$  or  $\overline{MB}$  )

- [b]  $275.415 \div 100 = \dots\dots\dots$

( 2754.15 or 27541.5 or 27.5415 or 2.75415 )

- [c] If  $U = \{3, 4, 5, 10\}$  and  $A = \{3, 4, 5\}$  , then  $\bar{A} = \dots\dots\dots$

( 10 or  $\{1, 0\}$  or  $\{10\}$  or  $\{3, 10\}$  )

- [d] A circle is of radius 3 cm. long , then its diameter length = ..... cm.

( 24 or 18 or 6 or 4 )

- [e]  $\{2, 5, 8\} - \{3, 5, 7\} = \dots\dots\dots$

(  $\{2\}$  or  $\{2, 8\}$  or  $\{3, 7\}$  or  $\{5\}$  )

- [f]  $25.518 \div 6 \approx \dots\dots\dots$  (to the nearest hundredth)

( 4.253 or 4.3 or 4.25 or 4.26 )

## 3 Draw the triangle XYZ , such that $XY = 3$ cm. , $YZ = 4$ cm. and $XZ = 5$ cm

What is the type of triangle XYZ according to the measures of its angles ?

3

## 4 Find the result :

- [a]  $12.7 + 8.732 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest  $\frac{1}{100}$ )

- [b]  $3.7 \times 0.35 = \dots\dots\dots$

- [c]  $4\frac{1}{8} \div 2\frac{1}{16} = \dots\dots\dots$

3

## 5 The opposite figure is a Venn diagram. List each of these sets :

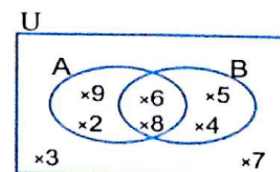
- [a] U

- [b]  $B \cap A$

- [c]  $A - B$

- [d]  $B \cup A$

- [e]  $\bar{B}$



5

To	
Lesson	3
Unit	3

- 1 Draw the triangle ABC in which  $AB = BC = 5$  cm. and  $AC = 8$  cm. , then draw the altitude from B to  $\overline{AC}$  and measure its length.

3

- 2 Draw the equilateral triangle ABC whose side length = 4 cm. , then draw  $\overline{AD} \perp \overline{BC}$  , find :

3

[a]  $m(\angle CAD)$

[b] The length of  $\overline{BD}$

[c] The perimeter of the triangle ABC

- 3 Choose the correct answer :

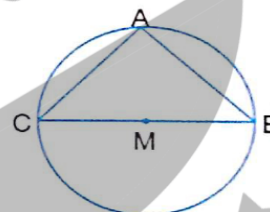
[a] If  $5 \in \{2, 3, x\}$  , then  $x = \dots\dots\dots$  ( 20 or 3 or 4 or 5 )

[b]  $612.8 \div 100 \dots\dots\dots 6.128 \times 10$  ( = or < or > )

[c]  $\emptyset \dots\dots\dots \{2, 7\}$  (  $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$  )

[d] In the opposite figure :

The greatest chord in the circle M is  $\dots\dots\dots$



(  $\overline{AB}$  or  $\overline{AC}$  or  $\overline{MB}$  or  $\overline{CB}$  )

[e]  $\{4, 5, 3\} - \{1, 3, 4\} = \dots\dots\dots$   
(  $\{5\}$  or  $\{1, 3, 4\}$  or  $\emptyset$  or  $\{4\}$  )

- 4 Complete each of the following :

[a]  $3.25 \times 10 = \dots\dots\dots$

[b] If  $X \subset Y$  , then  $X \cup Y = \dots\dots\dots$

[c] 4.48 dm.  $\simeq \dots\dots\dots$  to the nearest cm.

[d]  $\{2, 5, 7\} \cap \{5, 6\} = \dots\dots\dots$

[e] The number of altitudes of the triangle =  $\dots\dots\dots$

- 5 Find the result :

[a]  $1\frac{1}{5} \times 1\frac{1}{3}$

[b]  $2\frac{1}{5} \div 3.3$

[c]  $(24.6 + 1.24) \times 3$

[d]  $22.5 \div 1.5$

To	
Lesson	1
Unit	4

- 1 The following table shows the result of a survey has been applied to know the views of 100 pupils about the favorite game to them :

The game	Football	Handball	Basketball
The number of views	50	40	10

- [a] If one pupil is chosen at random , answer the following questions :

- (1) What is the probability that one of them prefers football ?  
 (2) What is the probability that one of them prefers handball ?  
 (3) What is the probability that one of them prefers basketball ?

- [b] If there are 300 pupils , what is the expected value of the number of pupils who prefer football ?

- [c] If there are 1 000 pupils what is the expected value of the number of pupils who prefer basketball ?

- 2 Choose the correct answer :

- [a]  $2.5 \times 100 = \dots\dots\dots$  ( 250 or 25 or 0.25 or 0.025 )

- [b]  $\{b\} \dots\dots\dots \{b, c\}$  (  $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$  )

- [c] Number of altitudes of any triangle is  $\dots\dots\dots$   
 ( 1 or 2 or 3 or 4 )

- [d]  $3.752 \approx 3.75$  to the nearest  $\dots\dots\dots$   
 (  $\frac{1}{10}$  or  $\frac{1}{100}$  or  $\frac{1}{1000}$  or  $\frac{1}{10000}$  )

- 3 Complete :

- [a] If  $U = \{1, 2, 4, 6, 8\}$  and  $A = \{1, 6\}$  , then  $\hat{A} = \dots\dots\dots$

- [b] The longest chord in the circle is called  $\dots\dots\dots$

- [c] The set of the digits of the number 30 772 is  $\dots\dots\dots$

- [d] The triangle whose measures of angles are  $30^\circ$  ,  $50^\circ$  and  $100^\circ$  is called  $\dots\dots\dots$  -angled triangle.

- 4 Use the opposite Venn diagram to find :

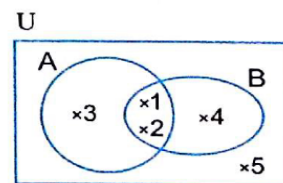
- [a]  $A \cup B$

- [b]  $A \cap B$

- [c]  $A - B$

- [d]  $\hat{B}$

- [e]  $(A \cap B)$



- 5 Draw the equilateral  $\Delta ABC$  in which its side length is 3 cm. , then find its perimeter.



To	
Lesson	2
Unit	4

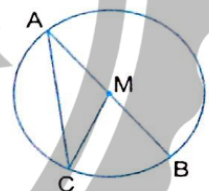
- 1 A box contains 4 white balls , 3 blue balls and 5 red balls , all of them are of equal size. When one ball is drawn randomly from the box , find the probability of :

- [a] blue ball. [b] red ball.  
[c] not red ball. [d] red or blue ball.



- 2 Complete each of the following :

- [a] The probability of the certain event is .....  
[b] Any chord passing through the centre of the circle is called a .....  
[c]  $1.8 \times 0.09 = \dots\dots\dots$   
[d]  $\{3, 4, 5, 2\} - \{5, 2\} = \dots\dots\dots$   
[e] In the opposite figure :  
(1)  $\overline{AB}$  ..... in the circle.  
(2) The point ..... is the centre of the circle.  
(3)  $MA = \dots\dots\dots = \dots\dots\dots$



- 3 Choose the correct answer :

- [a]  $\{2\} \dots\dots\dots \{1, 22, 33\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )  
[b]  $\frac{2}{5} < \dots\dots\dots$  ( $\frac{2}{5}$  or  $\frac{2}{3}$  or  $\frac{2}{7}$  or  $\frac{3}{8}$ )  
[c] As throwing a fair die once and observing the appearing number on the upper face , then the probability of appearing an even number is ..... ( $\frac{1}{3}$  or  $\frac{1}{2}$  or  $\frac{5}{6}$  or  $\frac{1}{6}$ )  
[d]  $2\frac{1}{4} \times 1\frac{2}{3} = \dots\dots\dots$  ( $3\frac{3}{4}$  or  $\frac{4}{15}$  or  $\frac{1}{3}$  or  $\frac{47}{12}$ )  
[e] The probability of the impossible event is ..... ( $\frac{1}{2}$  or  $\frac{3}{4}$  or 1 or 0)



- 4 [a] If  $U = \{1, 2, 3, 4, 5\}$ ,  $X = \{1, 2, 4\}$  and  $Y = \{1, 4, 5\}$

Represent them by Venn diagram , then find :

(1)  $X \cup Y$

(2)  $X \cap Y$

(3)  $\bar{X}$

(4)  $X - Y$

- [b] A card has been randomly drawn out of 10 cards numbered from 1 to 10

Find the probability of getting :

(1) an odd number.

(2) a prime number.

(3) a number less than 5

- 5 [a] If 9 483 cans are packed in 29 boxes , then how many cans are in each box ?

- [b] Draw the triangle ABC in which  $AB = 6$  cm. and  $BC = AC = 5$  cm. , then draw the altitude  $\overline{CD}$  on  $\overline{AB}$  and find its length.